# FACTORS AFFECTING PROVISION OF ORAL HEALTH SERVICES IN MAGALE HC IV NAMISINDWA DISTRICT

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## DECLARATION

I hereby declare that all the work in this research proposal is original unless otherwise acknowledged and has not been submitted for another award in this Institution or any other Institution of Higher Learning.

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## SUPERVISOR'S APPROVAL

This research report has been submitted for examination with my approval as the supervisor

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## DEDICATION

This work is dedicated to my parents Mr. Khaukha Fred and Mrs. Nakesa Robinah, my sister Wanyenya Philis Cynthia and the entire family at large for what you have done to my life. You are my source of inspiration.

## ACKNOWLEDGEMENT

I would like to extend my profound gratitude to the following persons and institutions without whose support I wouldn't have completed this piece of work.

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To my friends for always supporting me in all ways, encouraging me to work hard and praying for me and above all for believing in me.

This acknowledgment would be incomplete without mentioning my supervisor Dr. Ekuru Simon Peter without whose inspiration, effort, advice, guidance and patience, this work would not have been possible.

## ABSTRACT

Oral diseases continue to rise yet the services are disintegrated mainly due to lack of resources. There are many factors that influence health and health care seeking. Although many of these factors are similar across populations, exactly how they interact and influence the actions of people The current study, a population-based cross sectional survey, identifies the users of OH services of a Health Centre IV and healthcare managers in a rural District of Uganda, to gain information regarding availability, accessibility and adequacy of OH services, evaluation of user satisfaction as well as determining the political will in the provision of OH services in the community .Participants of the survey were interviewed for personal information and details regarding the OH services received at the HC. Both qualitative and quantitative data were collected by use of interviewer-administered questionnaires, interview guides and check-lists. The respondents included 10 key informants and 82 patients attending dental clinics at Magale HC IV. The subsequent data was then analysed to determine which factors affected the provision of OH services within the study area and whether the study participants believed there is political will in improving the OH services by District healthcare managers. Barriers to respondents receiving OH services included physical access due to difficult mountainous terrain, distance and time taken to seek for OH services, 70% of the respondents stayed more than 5Km away from the HC. More so, inadequate staff and lack of dedicated budget to OH services. Despite this, 40% of the respondents were fairly satisfied with the services provided while 80% of the District healthcare managers believed there is political will on OH services provided. The level of staffing of OH personnel in Magale HC IV was inadequate, having only 1 dental nurse assistant and visiting dental surgeon, there was no designated space for an ideal dental clinic and lacks specific budget for OH services Furthermore, OH services were partly inaccessible due to physical barriers such as mountains, streams on their way to the health facility with more than 70% of the patients coming from communities more than 5 Km away from the health centre. User satisfaction is an important indicator of quality services. Overall, only 17.5% of the patients were very satisfied with the service. While 40% were fairly satisfied with the OH services provided, pointing out the major setbacks as insufficient communication with OH personnel, long waiting time and failure to access the OH personnel on time during emergencies. The well reported political will (80%) was mainly supported through the employment of visiting dental surgeon and provision of dental nurse

assistant to the health facility. Based on the aforementioned findings, there was general inadequacy of resources for provision of OH services, poor accessibility due to difficult terrain and long distances from Magale HC IV as well as fair satisfaction on the care provision and significant political will for OH services in Namisindwa District. However, strengthening of community outreach service in the hard to reach areas, enhancing friendly approach to oral health education, employing more OH personnel and provision of required equipment instruments and supplies were recommended Furthermore, the hospital and district management should arrange and support supervision visits, staff appraisals, and communication and counseling sessions for the OH personnel while the planning committees consider reviewing and increasing the budget allocation with specific reference to Dental Unit.

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## LIST OF ABBREVIATIONS AND ACRONYMS

DHO: District Health Officer

DHMC: District Health Management Committee.

F/Y: Financial Year

HC: Health Centre

HU: Health Unit

NHP: National Health Policy

NMHCP: National Minimum Health Care Package

H/H: House/House

HIV/AIDS: Human Immunodeficiency Virus/Acquired Immuno Deficiency Virus

HSD: Health Sub District

HSSP: Health Sector Strategic Plan

LMICs Low and Middle Income Countries

LLU: Lower Level Unit

MOH: Ministry Of Health

M/S: Medical Superintendent

OH: Oral Health

OHE: Oral Health Education

PHC: Primary Health Care

PHDO: Public Health Dental Officer

PNFP: Private-Not-For-Profit

WHO: World Health Organisation.

## OPERATIONAL DEFINITION

**Dental treatment**: These are clinical services that restore damaged or diseased teeth or oral tissues, including fillings, dentures and oral surgery etc.

**Oral diseases**: These are particular abnormal conditions that negatively affects the structure or function of the oral cavity, and are not due to any external injury.

**Preventive services**: These are oral health measures which are aimed at maintaining existing health and promote on-going oral health of the people. These include Oral Health Education (OHE), dental screening, tooth brushing and flossing, fluoridation of public water sources.

**Oral health services**: These are actions which help in the provision of dental health activities. They encompasses both oral and dental services, and includes diagnostic, preventive, restorative and rehabilitative services.

**Accessible:** This refers to ease of reach in terms of distance and geographical location.

**Barriers**: These are factors that hinder people from accessing Oral Health services.

**User's satisfaction**: This is the extent to which the patient is happy with a service provided.

**Community-based**: These are services taken to where the people live.

**School health:** This is the type of oral health care provided to school-going children and adults.

**Political will**: This refers to the willingness of policy makers to identify and appreciate OH as a problem and consider it in planning and budgetary allocation. If the situation isn't arrested, the health status is likely to deteriorate, people are likely to become less productive and this is likely to have negative effect on the nation's economy.

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# CHAPTER I

## 1.0 INTRODUCTION

Health is a fundamental human right, where health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. (World Health Organisation -1948). Oral Health (OH) is an integral part of well-being of all individuals thus good OH is one of the contributing factors to good health. The mouth is sometimes referred to as the "mirror" of the body because it reflects the status of an individual's health. It's rather unfortunate that many have neglected it. According to study made from Auburn University in Alabama showed that Uganda has no structured oral healthcare system which might possibly allow the citizens to acquire the knowledge and access to appropriate oral healthcare thus, individuals within Ugandan villages may not be aware of their susceptibility to disease (Kemaly, P 2013). Oral Health refers to "a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing." (WHO, 2018). Though not life –threatening, oral disease remain a major public health concern in both developed and developing countries because of their high prevalence and significant impact on general health.

Despite great achievements in the oral health of populations globally, problems still remain in many communities around the world. This is particularly among underprivileged groups in both developed and developing countries (Winnie W.K 2011).

Uganda has a ratio of 1:80,000 dental surgeon to people ratio against the recommended one dental surgeon/officer to 1,000 people, this huge burden makes dentists to sit in their offices providing medication rather than going to communities to sensitize people on oral health (Ayub T 2018).

The National Health policy (NHP) of 1999 also considered a coordinated, functional, efficient and sustainable health infrastructure an indispensable element to provide and integrate services at the different levels of health care. In an effort to deliver OH services to the community, HC IV are supposed to have staff available, equipment (hydraulic chair), instruments (dental kit). It was however noted that more than 20% of these HCs lack such facilities. (MOH-Uganda, 2005). As shown in Appendix VII.

## 1.1 Background

Dental diseases are the commonest diseases ever suffered by the human race. They are responsible for about 60% of the body's total disability. The burden of dental disease in Uganda from a 2004-2005 study, revealed that 51% of the population had experienced a dental problem within six months prior to the study (Davis, N 2009). The commonest cause of unnecessary tooth loss is tooth decay. It was also found that preventive dental health programs were being given little priority. It was alarming to find that of the people who reported a dental problem, less than 30% had sought treatment. Tooth decay was found to contribute 93.1% to the disease burden, missing teeth 79.3%, dental decay in children 75.9% and bad breath 42.9%. This trend has not changed much and this has been attributed to an increase in consumption of sugary foods in regular diet, use of counterfeit toothpaste, poor access to dental health information and failure to promote public health preventive dental practices by the various stakeholders. The Ministry of Health Uganda receives an equivalent of about 9% of the GDP for financing its budget. Of this, less than 0.1% is allocated for dental health programs. The human resource is just as wanting.

There are only 200 dental surgeons in Uganda majority of who operate in urban centres.
The ratio of dental surgeon to patient stands at 1:80,000 and this is appalling. To make matters worse, the ministry does not have the ability to absorb all the doctors and as a result, many have abandoned the profession for greener pastures, hence leaving the population underserved. The other cadres like public health dental officers, dental lab technologists and dental equipment technicians have instead taken up the dental surgeon's role to save the situation, but alas, they carry out many unprofessional procedures which sometimes claim people's lives and wellbeing (Ayub T 2018).
On 27th November, 2009 the Uganda Dental Association with support from the World Health Organisation, launched the National Oral Health Policy for Uganda at Imperial Royale Hotel. The policy proposed strategies that, if adopted, will improve on oral health and make dental treatment affordable to more, if not all Ugandans. With the policy in place, it was hoped that no Ugandan will miss out on getting proper dental care.

## 1.2 Problem Statement

OH services in Magale sub county are inadequate yet many people suffer oral conditions due to lack of adequate information on factors affecting provision of OH services in Magale is one of the "Bottle necks' of planning and implementing OH programs in the district. Due to inadequate OH services, patients, their families and the community suffer pain, misery, and high costs. The existing gaps have been realized by district health managers and are postulated to be a result of lack of political will, lack of resources such as dental personnel, equipment, instruments, dental units and supplies. Limited scope of dental services in Namisindwa district has further led to the inadequacy of OH services in Magale that has been realized by the Health managers. If the OH services remain inadequate, that pain and discomfort that patients experience is likely to worsen, costs to the patients, their families and the community are likely to increase. If the situation is not arrested, the health status is likely to have a negative effect on the economy.

However, other factors like climatic changes, steep untarred roads and mountains, nutritional status could have profound impact on the provision of oral health services in Magale.

Several oral diseases and conditions account for most of the oral disease burden. They include dental caries (tooth decay), periodontal (gum) diseases, oral cancers, oral manifestations of HIV, oro-dental trauma, cleft lip and palate, and Noma (cancrum oris). Almost all diseases and conditions are either largely preventable or can be treated in their early stages. The Global Burden of Disease Study 2016 estimated that oral diseases affected at least 3.58 billion people worldwide, with caries of the permanent teeth being the most prevalent of all conditions assessed. Globally, it is estimated that 2.4 billion people suffer from caries of permanent teeth and 486 million children suffer from caries of primary teeth. In most LMICs, with increasing urbanization and changes in living conditions, the prevalence of oral diseases continues to increase notably due to inadequate exposure to fluoride and poor access to primary oral health care services. Heavy marketing of sugars, tobacco and alcohol leads to growing consumption of unhealthy products (WHO Oral Health Report 2018).

It is thus, important to determine the factors affecting the provision of oral health services due to high prevalence of oral health conditions in the study area.

### 1.3 Purpose of the study

To establish the factors affecting provision of oral health services.

### 1.4 Objectives of study

1. To assess the availability, accessibility and adequacy of OH services.

2. To evaluate the user's satisfaction of OH services.

3. To determine how political will influence on the provision of OH services.

### 1.5 Research Questions

1. What factors affect provision of oral health services in Namisindwa district?
2. Can availability, accessibility and adequacy enhance demand for OH services?
3. How does user satisfaction influence OH service uptake?
4. How does political will affects the provision of OH services?

### 1.6 Justification of the study

The study attempted to establish factors that affect provision of OH services and generate information on ways to improve the OH services and generate information on ways to improve the OH status of the people of Magale, which if used by the health managers could assist in decision-making and planning for appropriate and effective OH services .

Like most social services oral health services are mainly situated in urban areas leaving the rural populations unattended and worse still reliable information

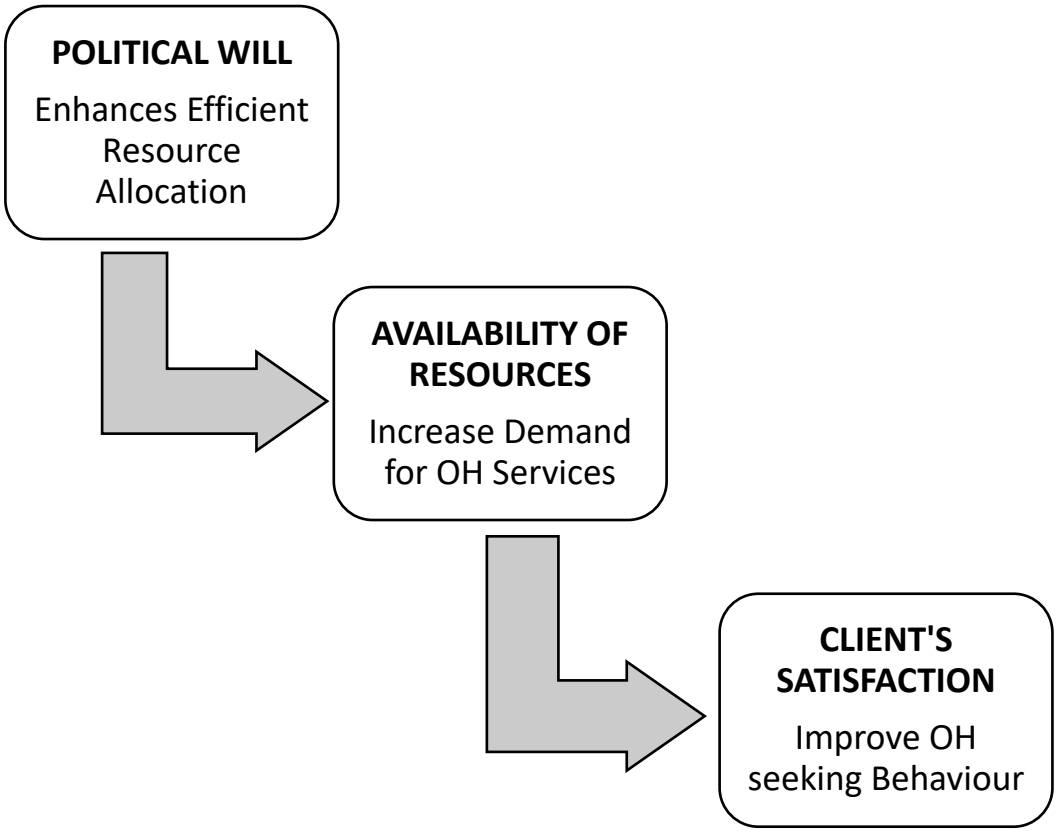
### 1.7 Scope of the study

The research aimed at establishing factors affecting provision of oral health services at Magale HC IV where the oral health unit's services were studied. The dental clinic was the study unit and respondents included key informants like the members of the Sub county Health Management and patients attending the dental clinics for exclusive OH conditions.

## 1.8 Conceptual Framework

**Figure 1.**

The conceptual framework of factors affecting provision of OH services.




Effective political will would enhance efficient resource allocation to the health centre, this in turn ensures availability of human and material resources for OH services leading to increase demand. Subsequently, client satisfaction would be achieved hence improve in OH seeking behavior.

# CHAPTER 2

# 2.0 LITERATURE REVIEW

## 2.1 Introduction

This section gives an overview of what some scholars and academicians have researched and or studied as far as OH is concerned. The situation of oral problems in most countries has been worsened by adoption of "westernized" dietary practices in cities and urbanization of rural areas as evidenced by the doubling of average decayed teeth per young person at 12 years in most developing countries, tripling in Uganda, Indonesia and Philippines. 6% of adults above the age of 65 years in Gambia and 25% in Madagascar have lost all their teeth. Cases of severe periodontitis have been found in 5-15% of most the population. Oral cancer is the 11th most common malignancy in the world. Despite the general global trend of a slight decrease in the incidence of oral cancer, tongue cancer incidence is increasing. The incidence and mortality caused by this tumor show variability according to the geographic location in which it is diagnosed. However, in the last decade an increase was observed in the percentage of young patients, especially patients with tongue cancer. The main risk factors of head and neck cancer worldwide are smoking and alcohol, as well as DNA oncogenic viruses and habits. (Ghantous Y, Abu E. 2017).

The rapid increase of oral disease has resulted in to increased demand for oral care thus exerting more challenges to the already insufficient resources, and as a result, the public tends to mostly utilize curative and rehabilitative rather than preventive services. Furthermore, brushing the teeth twice a day with fluoride toothpaste, flossing daily, eating a balanced diet and visiting a dentist regularly can help maintain a healthy mouth.

2.2 Availability, Accessibility and Adequacy of OH Services

Uganda already faces a multitude of challenges in the health care arena, from ensuring that health care services are delivered in the most equitable manner, to structuring the health care delivery system to be most effective and waging campaigns against the leading causes of mortality and morbidity (World Bank, 1999). Uganda's estimated GDP per capita is US$532 (according to the 2010 estimate) with 24.5% population currently living below poverty line and about 41% likely to slip below poverty line (Asifiwe C. G 2014).

Addressing key barriers to oral health care access was a difficult task for parents in all areas of the country. However, in order to improve and promote oral health care in the population, it is important to investigate, identify, and address those factors preventing dental care access (Doudelyne C.B 2016). However, in a similar research, it was established that poor oral health among underserved children is affected by the utilization, availability, and access to oral health services, as well as the knowledge and attitudes of parents in relation to seeking oral care for their children. Parents report that their children's oral health is worse than their general health (Mandal et al 2013).

2.2.2 Evaluation of User's satisfaction of OH services.

Regular check-ups and professional cleaning are important to maintain health oral tissues and diagnosing and treating disease thus avoiding complications. Consequences of untreated oral problems may result into pain, tooth loss, deformity, disability and interference with eating, speech and social life. Therefore there is need for combined effort of all stake holders to advise means of addressing the escalating oral disease in the population-one of them being a good OH system. Patient satisfaction is increased with friendly and understanding PHC staff. Moreover, meeting patient expectations by taking time to understand the needs and giving the right instructions is associated with higher satisfaction (Muath A.A et al 2017). In another study done in Kuwait, although the respondents were generally satisfied, internal differences were observed. Their satisfaction with the dentists' performance was highest, followed by that with the dental assistants' services. The clinical settings came third in satisfaction, followed by their overall satisfaction and their satisfaction with the reception staff. The reception area and accessibility were the least satisfactory. (Dena A.A 2016).

2.2.3 To determine how Political will influence provision of OH services

A good OH system should include preventive, curative and rehabilitative services. Preventive services are effected through education to the public by carrying out community health programs and to children through school health or home based program. Children are emphasized because they are vulnerable and by doing so, one plays a lifetime foundation of good OH.

The Ugandan National Oral Health Policy was designed to establish a comprehensive oral health system fully integrated in general health and based on primary health care, with emphasis on promotion of oral health and prevention of oral disease by the year 2015. The system was to ensure continued facilities for curative and rehabilitative care, within available resources. It is

further envisioned that the system will lead to equitable access to good quality oral health care services for all individuals and communities in order to ensure improved levels of oral health and function.

Oral diseases affect 3.9 billion people globally and have a significant impact on individuals, communities, health systems, economies and society at large. Consequences of oral disease on individuals are both physiological and psycho-social. Yet despite their magnitude, awareness of oral disease among politicians, health planners and even members of the public health community remains low. This often leads to oral public health interventions to be regarded as a luxury rather than a fundamental human right. As a result, although oral disease is one of the most common non-communicable diseases (NCDs) worldwide it does not get the necessary attention (FDI World Dental Federation 2017)

# CHAPTER 3

## 3.0 RESEARCH METHODOLOGY

The following chapter provides the methods employed in this descriptive cross-sectional study aimed at establishing factors affecting provision of oral health services at Magale HC IV where the oral health unit's services were studied. The dental clinic was the study unit and respondents included key informants that is, members of the Sub county Health Management Committee (SHMC), the Hospital Medical Superintendents (M/S). HSD PHC coordinators, HC in-charge of dental unit, OH personnel like the Public Health Dental Officer (PHDO) and chair side assistance, dental nurses, and patients attending the dental clinics.

### 3.1 Study area

Magale HC IV is located in Magale Sub County in Namisindwa District which is 244Km from Kampala capital city, bordered by Bududa District to the north, Kenya to the east and south, Tororo District to the south-west. The district headquarters at Bupoto are located approximately 40 kilometers by road, south-east of Mbale. In July 2016, the population of Namisindwa District (Bubulo County East) according to the Uganda Bureau of Statistics (UBOS), was approximately 178,746. The Health centre has 6 units namely; Medical, Surgical, Pediatrics, Maternity, General Outpatient and Dental unit which is located next to the general outpatient department. It has a total bed capacity of 60 and total staff strength of 22; 2 medical officers, 10 nurses, 3 clinical officers 1 public health dental officer and a visiting dental surgeon, 2 laboratory technicians and 3 Administrative staff.

### 3.2 Sampling Procedure

A census of the dental unit was considered since OH services are provided only by Magale HC IV in the sub county, purposive sampling was employed for the respondent's. The sample size of 92 patients was obtained using statistical technique of EPINFO (Software); taking the average population of patients attending Magale HC IV Dental unit per year as 2000, confidence level of 95% and of Confidence interval of 10.

### 3.3 Eligibility

Patients with exclusive dental problems were considered and included in the study while those with other combined medical conditions were excluded.

## 3.4 Study Variables

### 3.4.1 Objective 1: Availability, Accessibility and Adequacy of OH Services

These were the inputs required for provision of OH services and they included human, materials such as equipment, instruments, space, and financial resources.

Human resources refers to the number of qualified health workers offering OH services. The availability of a PHDO with a diploma in Public Health Dentistry from a recognized institution, and a chair side assistant such as an on-job trained Nursing Assistant were considered adequate. The data was obtained from the staff register.

Adequacy of material resources was assessed by the presence of a hydraulic dental chair as well as a dental kit that included examination instruments, extraction forceps and equipment for sterilization of instruments.

The data was obtained by observing and reviewing the equipment register and cross checking against the prepared checklist. Adequacy of drugs and supplies was assessed by the presence of lignocaine, adrenaline, syringes, needles, gauze cotton wool obtained by interviewing HSD PHC coordinators and OH personnel.

Physical infrastructure; The designated space for provision of OH services was considered adequate due to good ventilation system, natural light, cemented floor, the ability of the space to accommodate the equipment and furniture within the dental clinic, these include: dental chair, an office desk and chair, PHDO's stool, seats for the patient/s and care-taker.

Financial resources for OH activities was considered adequate with a HSD annual budgeting allocation of at least 3 million Uganda shillings thus the budget-line on provision of OH services was established by interviewing members of the DHC, HSD PHC coordinator, OH personnel and reviewing HSD work-plans.

For purposes of this study, accessibility was assessed in terms of ease and distance of getting to the facility, information on geographical physical features such as rivers, mountains and distance were established by interviewing patients attending the dental clinic on exit.

3.4.2 Objective 2: Users' satisfaction.

This was referred to the extent to which the patient felt happy about the OH service(s). It was assessed using three indicators: drugs and supplies availability, dental personnel's availability and attitude, waiting time and cleanliness. These were obtained by interviewing the patients attending the dental clinic on exit and rated as follows:

| **Level of satisfaction** | **% Score** |
|---|---|
| Very satisfied | 81-100 |
| Satisfied | 61-80 |
| Fairly satisfied | 41-60 |
| Dissatisfied | 21-40 |
| Very dissatisfied | 0-20 |

3.4.3 Objective 3: Political will

This was referred to the ability policy makers to identify and appreciate OH as a sub-sector worth consideration in planning and budget allocation. Adequacy was assessed by the presence of an annual budget of at least 3 million Uganda shillings committed to OH programs for the F/Y 2018/2019. The required information was obtained by interviewing members of the DHMC, HSD, PHC coordinators and OH personnel.

3.5 Data Management

3.5.1 Data collection:

A pretested questionnaire was used to collect data on availability, accessibility, adequacy and client's satisfaction on OH service provision. While direct interview was conducted on the members of DHMC, HSD, PHC coordinators and OH personnel using audio recordings.

3.5.2 Data processing

Completed questionnaires was checked for accuracy and completeness at the end of data collection while the audio recordings were summarized and key information extracted and analyzed on papers.

### 3.5.3 Data analysis

Quantitative data was processed using dummy tables, calculator and analyzed by scientific tables and charts using Microsoft excel. Qualitative data was processed and analyzed manually and presented in text using Microsoft word computer program.

### 3.5.4 Quality control

This was catered for by:

-Training a research assistant to avoid interpersonal errors thus, ensuring uniformity.

- Recording all responses as given by respondents to avoid them being forgotten.

-Recording observation, as they appear to minimize observation bias.

-Checking for accuracy and completeness of all questionnaires before parting with the respondents and having all questionnaires numbered so as to avoid omissions and double entry while safety was ensured by proper storage to avoid losses and damages.

### 3.5.5 Ethical considerations

Ethical approval was obtained from Kampala International University Ethics and Research Committee. However, on the field ethics was fully observed by seeking verbal consent from respondents prior to the interview, giving due respect, assuring and ensuring privacy and confidentiality of the respondents, and giving a feedback of the findings. Responses from children were obtained from parents/guardians that had accompanied them to the dental clinic. Subsequently, the information obtained from the clients was shared with the health center management, district officials for service improvement and policy influence.

### 3.5.6 Limitations and Delimitations of the study

The Magale HC IV has a non-resident visiting Dental surgeon thus, he could not be available for some emergency dental procedures.

### 3.5.7 Dissemination of study findings

The results of the study was availed to the faculty of Clinical Medicine and Dentistry by giving a copy of the final report to the faculty, District Director of Health Services (DDHS), Sub county office and Medical superintendent Magale HC IV.

# CHAPTER 4

## 4.0 PRESENTATON OF RESULTS

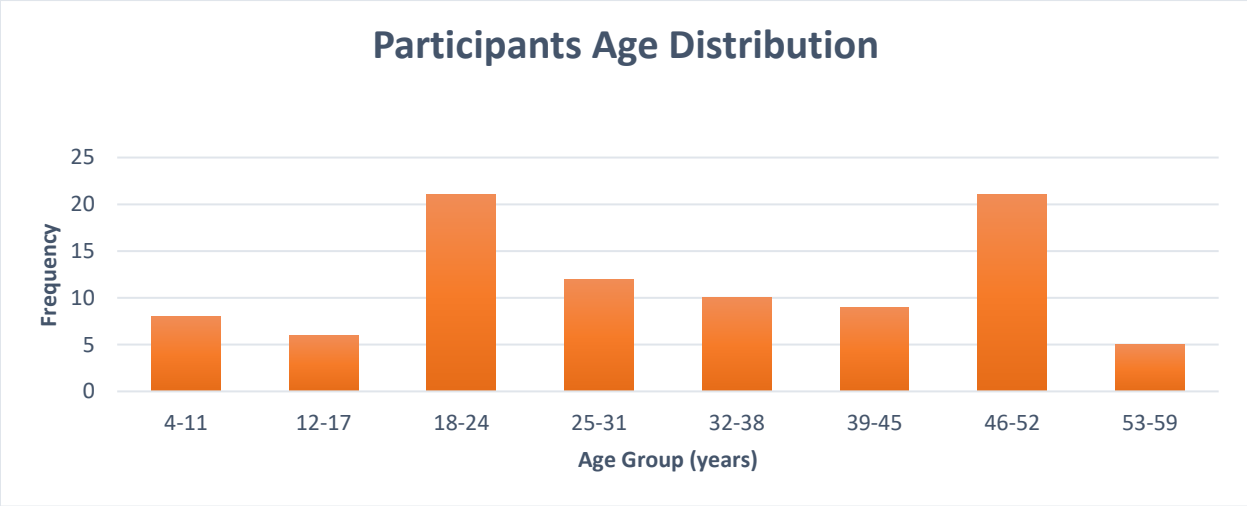
This section contains the main findings of the study that was conducted at Magale HC IV Namisindwa district on factors affecting the provision of OH services.

A total of 92 respondents were interviewed. 10 of the respondents were members of the DHMC, HSD, PHC coordinators and medical superintendents while 82 constituted the patients.

Table 1 Showing Participants Age Distribution

| AGE GROUP (Years) | FREQUENCY | PERCENTAGE (%) |
|---|---|---|
| 4-11 | 8 | 8.7 |
| 12-17 | 6 | 6.5 |
| 18-24 | 21 | 22.8 |
| 25-31 | 12 | 13.1 |
| 32-38 | 10 | 10.9 |
| 39-45 | 9 | 9.8 |
| 46-52 | 21 | 22.8 |
| 53-59 | 5 | 5.4 |
| TOTAL | 92 | 100 |

Graph 1 Showing Participants Age Distribution

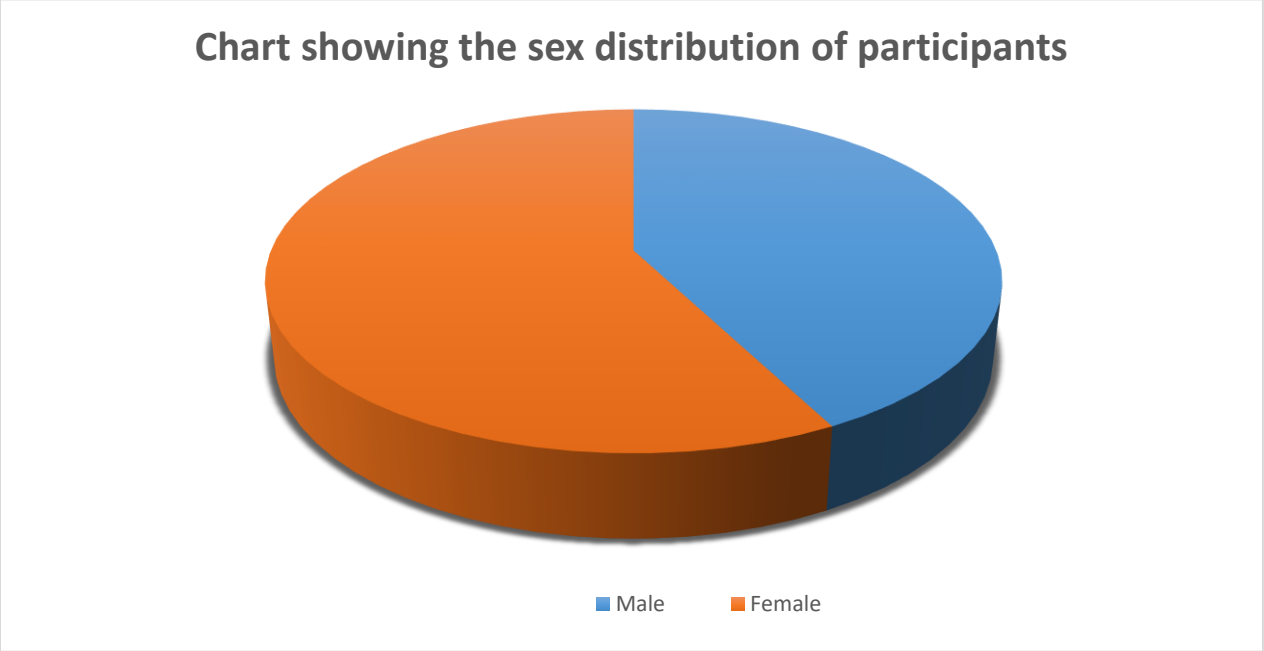



According to the above data analysis, the predominant age groups were 18-24 and 46-52 years constituting 22.8% each.

Table 2 Showing sex distribution of the participants

| Sex | Frequency | Percentage (%) |
|---|---|---|
| Male | 39 | 42.4 |
| Female | 53 | 57.6 |
| Total | 92 | 100 |

Chart 1 Showing sex distribution of the participants




Out of the 92 respondents 53 were females and 39 males as shown in table 2 above.

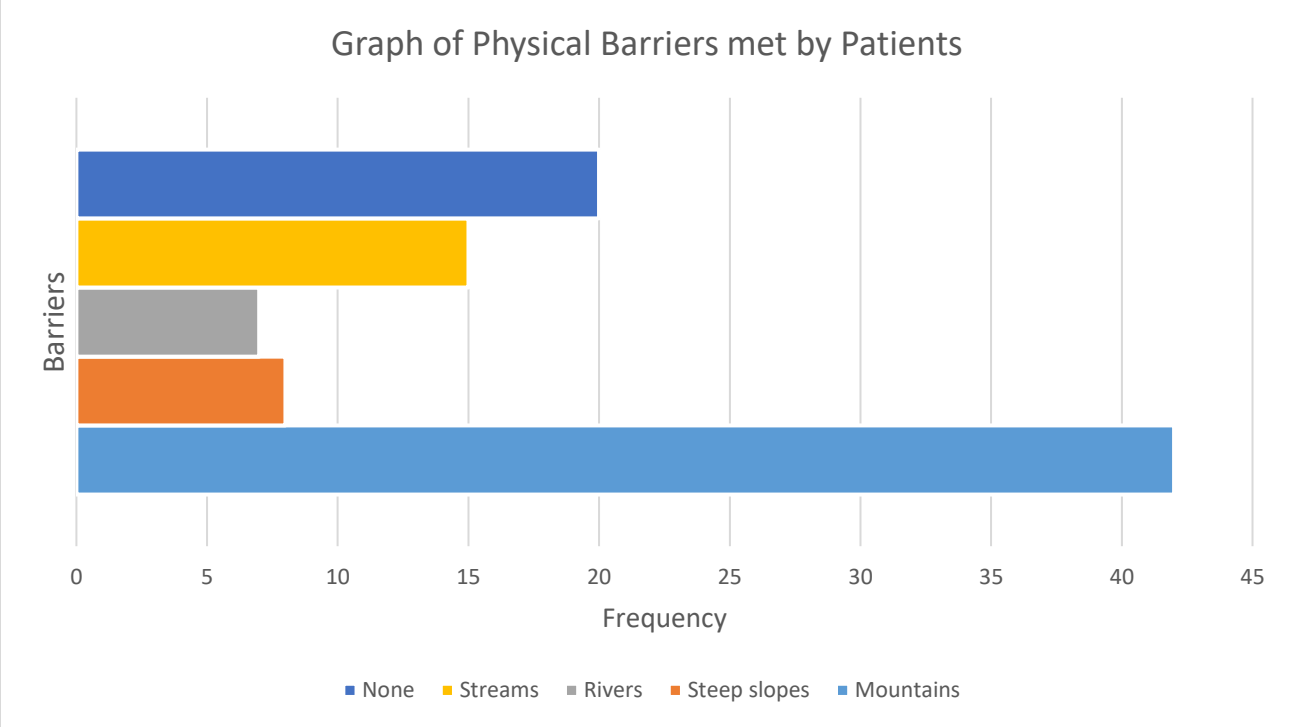
4.1 Accessibility

Physical barriers met by patients were established and summary of the results is shown in the table below.

Table 2 showing physical barriers met by the patients

| BARRIER | FREQUENCY | PERCENTAGE |
|---|---|---|
| Mountains | 42 | 45.7 |
| Steep slopes | 8 | 8.7 |
| Rivers | 7 | 7.6 |
| Streams | 15 | 16.3 |
| None | 20 | 21.7 |
| Grand Total | 92 | 100 |

Graph 2 showing physical barriers met by patients

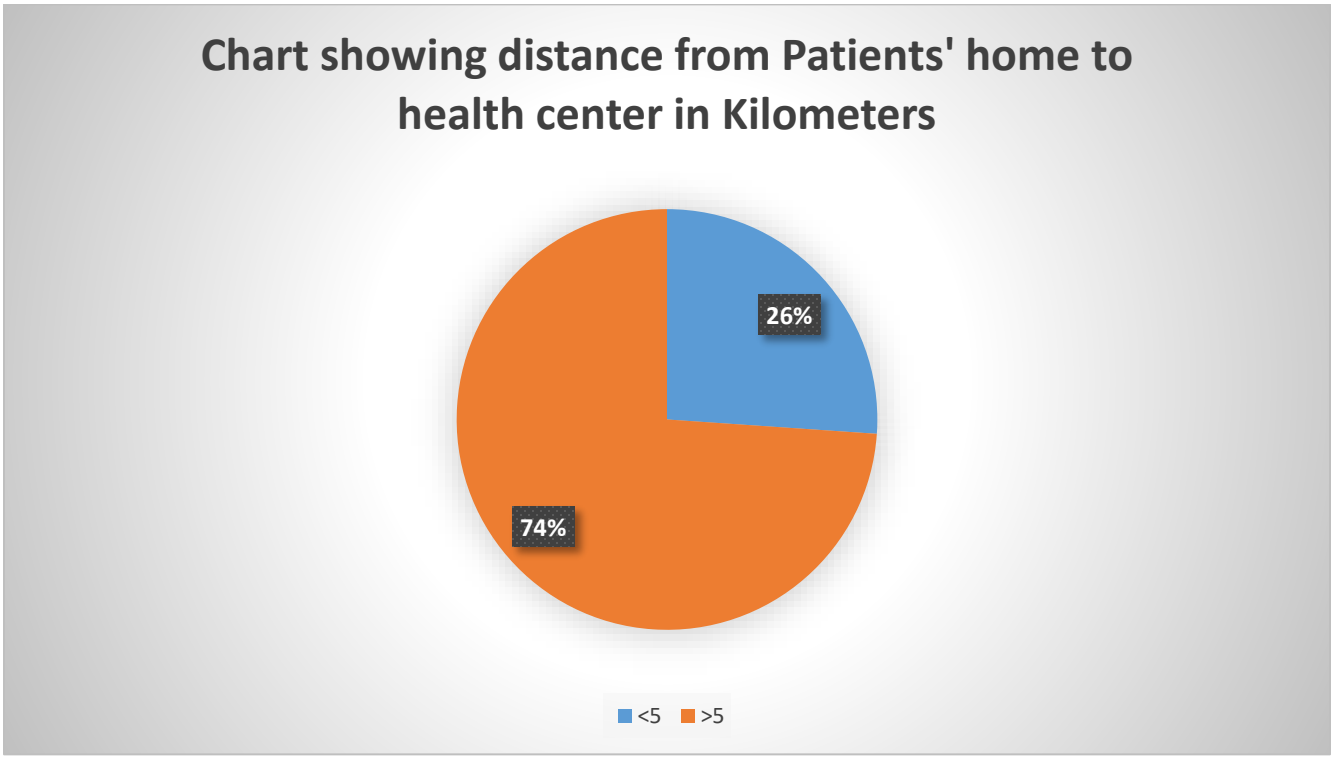



According to table and graph 2 it's observed that majority of the patients met mountains as their physical barriers.

Table 3 showing the average distance from the health centre to patients' homes

| DISTANCE IN KM | NUMBER | PERCENTAGE (%) |
|---|---|---|
| <5 | 24 | 26 |
| >5 | 68 | 74 |
| Total | 92 | 100 |

Chart 2 showing distance from patients' home to health center




It can be observed from table 3 and the chart above that majority of the patients travelled more than 5km to access OH services.

4.2 User Satisfaction

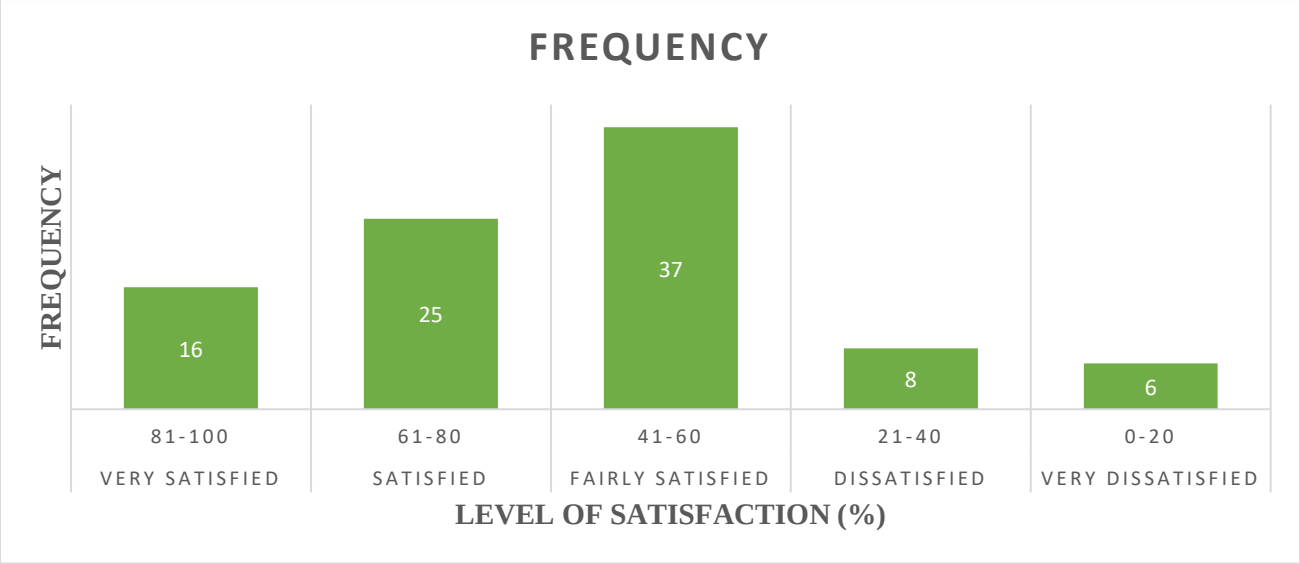
The clinics attend to an average of 25-30 patients a week where the following services;

Oral health education and screening, extraction, scaling polishing, minor oral surgery such as incision and drainage were performed.

Table 4 showing OH services user satisfaction

| Level of satisfaction | Score (%) | Frequency | Percentage |
|---|---|---|---|
| Very satisfied | 81-100 | 16 | 17.4 |
| satisfied | 61-80 | 25 | 27.2 |
| Fairly satisfied | 41-60 | 37 | 40.2 |
| Dissatisfied | 21-40 | 8 | 8.7 |
| Very dissatisfied | 0-20 | 6 | 6.5 |
| Total | | 92 | 100 |

Graph 3 showing OH services user satisfaction.




The level of user satisfaction with the provided OH service was assessed using indicator questions. Areas of satisfaction were identified as availability and attitude of personnel, availability of drugs and supplies. Discontinuity of services especially when the dental nurse is out of explanation about the oral condition in some areas highlighted for being less satisfactory.

The results were summarized in the table above, with 40% fairly satisfied with the OH services.

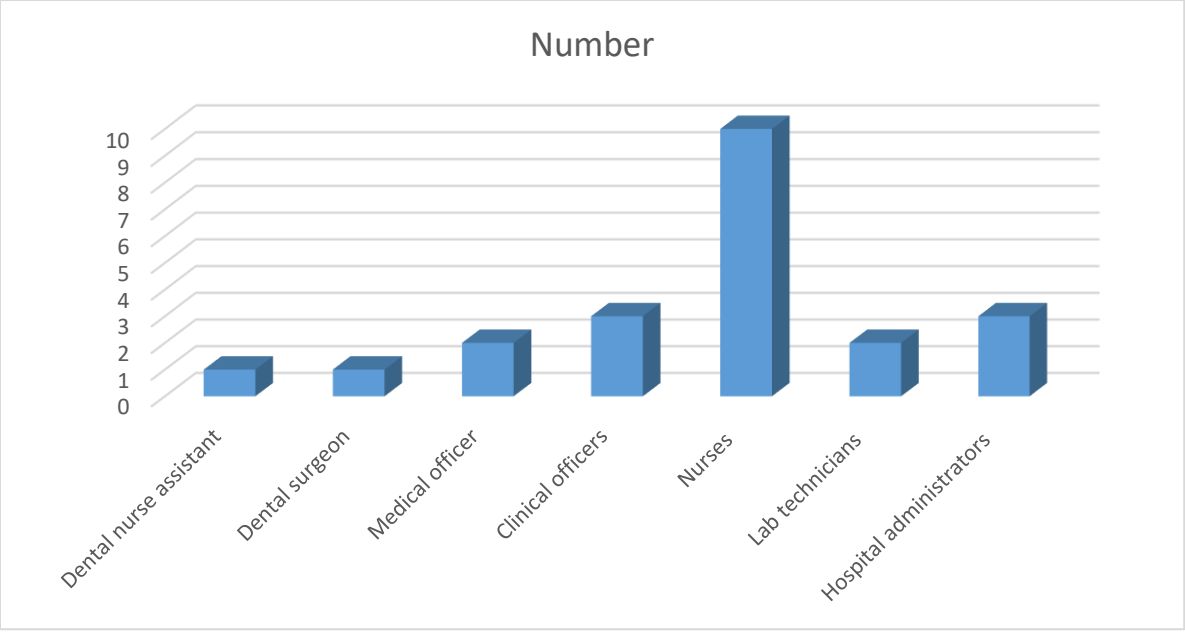
4.3 Political will

Presence or absence of political will was assessed based on staff strength and specific budget allocation to OH services in the health centre

Table 5 showing Magale Health Center staffing

| Staff | Number |
|---|---|
| Dental nurse assistant | 1 |
| Dental surgeon | 1 |
| Medical officer | 2 |
| Clinical officers | 3 |
| Nurses | 10 |
| Lab technicians | 2 |
| Hospital administrators | 3 |

Graph 4 showing Magale health center staff

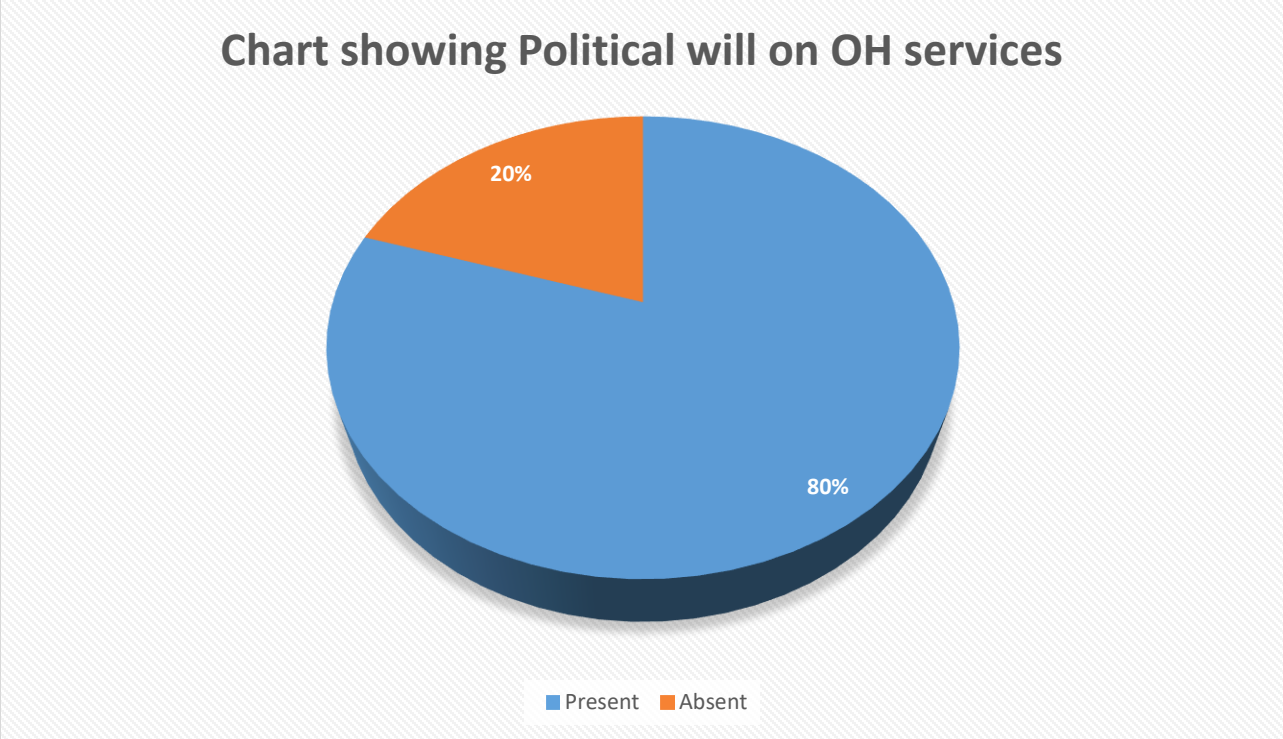



The above graph showed only 2 staff allocated to dental unit for OH services

Table 6 showing political will on OH service provision by District officials

| **Political Will** | **Frequency** | **Percentage** |
|---|---|---|
| Present | 8 | 80% |
| Absent | 2 | 20% |
| Total | 10 | 100% |

Chart 3 showing Political will on OH services




10 key informants were interviewed, 80% agreed that there is political will as seen from the district employing visiting dental surgeon, regular financing of Magale HC IV through PHC fund though not streamlined to OH activities. However, 20% thought there was no political will since OH services are never mentioned in health services planning meetings and that OH wasn't a priority to those responsible for planning of the health facilities.

# CHAPTER 5

# DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS.

## 5.0 Introduction

The factors affecting the provision of OH services in terms of availability, accessibility and adequacy, client's satisfaction on the services provided as well as political will on OH services by healthcare managers were discussed, conclusions were drawn based on the analyzed data and recommendations offered for possible improvement in service delivery and uptake in the District.

## 5.1 Discussion

5.1.1 Availability, Accessibility and Adequacy of OH services

(a) The level of staffing of OH personnel in Magale HC IV was found to be inadequate as shown in table 5 with only 1 dental nurse assistant and visiting dental surgeon but lacks PHDO personnel deployed to the Health facility. Although the National Health policy envisions the placement of a PHDO at each of the Health Centre IVs in the country (Appendix VI), however this has not been realized (only 35% of these health facilities have a PHDO (MOH-Uganda National Oral Health Policy 2007).

(b) The level of equipment at the HC IVs is inadequate, there was no designated space for a dental clinic at the health facility. According to the HSSP and Uganda oral Health strategic plan, HC IVs are supposed to have a hydraulic chair, instruments and supplies for oral care (MOH-Uganda National Oral Health Policy 2007).

Magale HC IV has no specific budget for OH services as obtained during the interview, this is in line with an MOH document that stated "Ministry of Health (MOH) operates on a low budgetary allocation of approximately 9% of the GDP, which is not adequate for optimal service delivery in the country. Of this the direct oral health care budgetary allocation is less than 0.1%" (MOH-Uganda National Oral Health Policy 2007).

(c) Furthermore, OH services were partly inaccessible due to the nature of the terrain and geographical location of the health facilities. Majority of the patients reported to have met physical barriers such as mountains, streams on their way to the health facility. The highest number of patients indicated mountains as their major obstacle but least affected by flowing rivers. More than 70% of the patients came from areas more than 5 Km away from the health centre. Similar studies come up with physical barriers and distances as some of the factors that hinder accessibility and

distances as some of the factors that hinder accessibility and utilization of health care services Doudelyne C.B (2016).

### 5.1.2 User satisfaction

User satisfaction is an important indicator of quality services. Overall, only 17.5% of the patients were very satisfied with the service. While 40% were fairly satisfied with the OH services provided at Magale HC IV. The major setbacks came were insufficient communication with OH personnel, long waiting time and failure to see the OH personnel because he was out of attending a meeting for an outreach program. In similar study that showed patient satisfaction is increased with friendly and understanding PHC staff. Moreover, meeting patient expectations by taking time to understand the needs and giving the right instructions is associated with higher satisfaction (Muath A.A et al 2017).

### 5.1.3 Political will

The well reported political will (80%) was mainly enhanced by employing and deploying visiting dental surgeon and provision of dental nurse assistant to the health facility. On the contrary, some respondents (20%) reported that OH is not given priority for it is never mentioned in health care related meetings. Some studies had shown that, despite the magnitude of oral health conditions in our society, awareness of oral disease among politicians, health planners and even members of the public health community remains low. This often leads to oral public health interventions to be regarded as a luxury rather than a fundamental human right. As a result, although oral disease is one of the most common non-communicable diseases (NCDs) worldwide it does not get the necessary attention (FDI World Dental Federation 2017).

## 5.2 CONCLUSION

A new finding for this study was the significant proportion of people from this population that used OH services. People that participated in the study appear to utilize the available OH services despite the challenges. Of these, it was predominantly women overall that were the greater users of these services, as compared with the males from the study.

### 5.2.1 Availability, Accessibility and Adequacy of OH services

The role of geographical location, distance, manpower and healthcare financing are important determinants for OH service provision in this study. Barriers to respondents receiving OH services included mountainous terrain, distance and time taken to seek for OH services as well as inadequate staff and lack of dedicated budget to OH services.

### 5.2.2 User satisfaction

User satisfaction was an important indicator in the provision of OH services. A significant proportion of the study population were just fairly satisfied with the services received. The major concern was lack of proper communication with the service providers,

### 5.2.3 Political will

Majority of the District and Facility healthcare managers' perceived positive political will on OH service on account of staff employed and available equipment provided. Even though human and material resources were not adequately deployed. What has been seen here is the very pragmatic nature of OH health care service use in the African context.

## 5.3 RECOMMENDATION

5.3.1 Availability, Accessibility and Adequacy of OH services

a. The district shall plan to improve accessibility and utilization of OH services by strengthening the community outreach service in the hard to reach areas through the incorporation of OH activities. This in turn, would help in creating awareness and addressing OH related problems in the respective communities.

b. The district management and district health commission could consider recruiting and deploying more OH personnel at HC IVs and a resident dental surgeon to address the problem of lack of human resources as well as offering a wider scope of services. The district could consider equipping the HC IVs with the required equipment instruments and supplies to improve provision of OH services being the only health facility providing OH services in the whole district. This would ensure implementation of the NMHCP to people at the grass root

c. The district health management and district health commission should consider planning to ensure that curative, preventive and rehabilitative OH services are provided and can be accessed at all levels

5.3.2 User satisfaction

a. The client service satisfaction could be enhanced through friendly approach and oral health education as well as improvement in service provision.

b. The hospital and district management especially DDHs could consider arranging for support supervision visits, staff appraisals, and communication and counseling sessions for the OH personnel.

5.2.3 Political will

a. In order to improve community and school-based OH care provision in HSDS, the HSDS, the planning committees could consider reviewing and increasing the budgeting allocation.

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## APPENDICES

### APPENDIX I

Questionnaire for exit (dental patients) interview

Questionnaire number……..

Date of interview……

Name of the Unit……

1. Sex : Male ☐ Female ☐
2. Age……
3. Level of education
   a. No education
   b. Primary
   c. Secondary
   d. Tertiary
   e. Other, specify…….
4. Religious denomination
   a. Catholic
   b. Protestant
   c. Islam
   d. Pentecostal
   e. Other, specify……
5. Occupation
   a. None
   b. Peasant farmer
   c. Civil servant
   d. Business
   e. Pupil
   f. Student

6. Marital status
    a. Married
    b. Single
    c. Widowed
    d. Divorced
    e. Separated
7. Distance from health facility
    a. < 5 Km
    b. > 5 Km
8. What barriers do exist on the way to the health facility
    a. Rivers
    b. Streams
    c. Mountains
    d. Steep slopes
    e. Others, specify……
9. What was your main reason of coming to the health center

    ……
10. Have you been seen by OH personnel? YES/NO
11. If YES, to (10) above, proceed to (13).
12. If NO, to (10) above, why?

    ……

    ……
13. How long have you waited to be attended to?

    ……
14. Have you received all the prescribed medications? YES/NO
15. If NO to (14) above, why?

    ……

    ……

    ……
16. Have you been given any explanation about your problem? YES/NO
17. Have you been given any explanation about your treatment? YES/NO

18. In your opinion was the clinic clean? YES/NO
19. In your opinion were the OH personnel friendly? YES/NO
20. Have you ever been sent away due to lack of supplies? YES/NO
21. Would you want to come back or recommend someone to come to this clinic in case of need for dental services? YES/NO
22. If YES to (21) above, give reasons

    ……

    ……

    ……

    ……

23. If NO to (21) above, give reasons

    ……

    ……

    ……

    ……

APPENDIX II

Questionnaire for OH personnel

Questionnaire number……..

Date of interview……

Name of the Unit……

1. For how long have you worked here?

   ……

2. What is your qualification?

   ……

3. What is your title?

   ……

4. Do you offer oral health services? Yes/No
5. If yes to 4. Above, which ones?

   ……

   ……

6. On average how many patients do you see per day?

   ……

7. What commonest conditions do you see?

   …….

8. Are there Oral Health conditions you see that need referral? Yes/No.
9. If yes to 8. Above what cases do you refer?

   ……

   ……

10. Where do the referred patients go?

    ……

    ……

11. If they do not go what reasons do they give?

    …….

12. What problems do patients encounter on referral?

    ……

    ……

13. Are there community-based services that you offer?

    Yes/No.

14. If yes to 13. Above, List them.

    ……

    ……

15. Is there a budgetary allocation to OH services? Yes/No

    If yes to 15.above how much is it?

    ……

    ……

16. In your opinion is the space designated for provision of OH services adequate? Yes/No.
17. Do you suffer stock out of drugs and supplies for OH services? Yes/No.
18. If yes to 19. Above for how long have you had to go without them?

    ……

    ……

19. Do you think people in authority consider OH to be important? Yes/No
20. Give reasons for your answer to 21. Above.

    ……

    ……

    ……

21. What are the common problems encountered while offering OH services?

    .....

    .....

    .....

22. Suggest ways in which problems mentioned in 21. Above could be overcome.

……

……

……

……

APPENDIX III

Questionnaire for PHC coordinators and medical superintendents

Questionnaire Number…….

Date of interview…….

Name of the unit…….

1. What is the catchment population of this health unit?

   ……

2. What is the catchment area of this Health Unit?

   ……

3. Do you offer oral Health services? YES/NO
4. If yes to 3. Above, which ones?

   ……

   ……

RESOURCES FOR OH SERVICES

(A) Human

5. Do you have OH personnel? Yes/No
6. If yes to 5. What are their qualifications?

   ……

   ……

7. If No, to 5. Above why?

   ……

   ……

8. Do you experience any difficulties in recruitment and retention of OH personnel? YES/NO
9. Give reasons for your answer.

   ……

   ……

10. Is there a budgetary allocation to OH services? YES/NO

11. 10. How much was allocated for the FY 2017/2018 and 2018/2019?

……

……

12. If no to 9. Above why?

……

……

(B) Material

13. Is there a designated place for provision of OH services yes? YES/NO

14. If yes to 12. Above, is it adequate? YES/NO

15. Do you suffer stock-out of drugs and supplies for OH services? Yes/No

16. If yes to 15. Above for how long have you had to go without them?

……

……

17. Do you think people in authority realize OH as important? Yes/No.

18. Give reasons for your answer

……

……

……

19. What are the common problems met in the provision of OH services?

……

……

……

……

20. Suggest ways in which problems mentioned in 19. Above could be overcome

……

……

.....

.....

.....

APPENDIX IV

Interview guide for members of the DHMC

Questionnaire number……..

Date of interview……..

1. Are OH conditions/disease a problem in the district?

- Magnitude

  ……

  ……

- Common conditions

  ……

  ……

  ……

- Who is affected most

  ……

  ……

2. Is there need to provided OH services? YES/NO
3. How are OH services provided in the District?

   ……

   ……

   ……

4. Is there HMIS data for OH in the District? YES/NO
5. What challenges do the OH personnel face in the district?

- Are the personnel adequate? YES/NO
- Recommended Staffing

  ……

- Current staffing

  ……

- Gap

  ……

What problems do you face in recruiting and retaining OH personnel?

……

……

……

(A) Financial

Is there a special budget for OH services? YES/NO

If yes ask for HSD work plans-find out amount (%) allocation to OH.

……

……

If no ask why?

……

……

……

(B) Materials (How do they get them and how often)?

-Equipment

……

……

……

Instruments

……

……

……

Sundries

……

……

……

……

C) Physical infrastructure

Is there designated space for how services at the HSD? YES/NO

If yes, is it adequate?

……

……

If no, why?

……

……

……

D) What strategies are put in place to address the challenges?

……

……

……

……

APPENDIX V

Health Facility Checklist

| **Description** | **Availability** | | **Comment** | |
|---|---|---|---|---|
| A) Human Resources | Yes | No | Adequate | Not Adequate |
| 1. PHDO<br>2. Chair side Assistant | | | | |
| B) Dental Clinic | | | | |
| Physical infrastructure | | | | |
| Cemented floor | | | | |
| Waiting area | | | | |
| Seats | | | | |
| Shed | | | | |
| Working space | | | | |
| Consultation/Treatment form | | | | |
| Natural light | | | | |
| Ventilation | | | | |
| Water system | | | | |
| Flowing water | | | | |
| C) Equipment | | | | |
| Dental Chair | | | | |
| Dentist's stool | | | | |
| Desk | | | | |
| Chair | | | | |
| Patient's/care takers seats | | | | |

| | | | | |
|---|---|---|---|---|
| Sterilization equipment | | | | |
| | | | | |
| D) Instruments | | | | |
| Dental kit | | | | |
| Examination instruments<br>Extraction forceps | | | | |
| | | | | |
| | | | | |
| E, Drugs and supplies | | | | |
| Lignocaine | | | | |
| Adrenaline | | | | |
| Gloves | | | | |
| Cotton wool | | | | |
| Gauze | | | | |
| Syringes | | | | |
| Needles | | | | |
| Services offered | | | | |
| 1. Facility-based | | | | |
| Dental Health Education | | | | |
| Extractions | | | | |
| Fillings | | | | |
| Scaling | | | | |
| Polishing | | | | |
| Dentures | | | | |
| Eyelet wiring<br>Root canal Treatment | | | | |
| | | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| 2. Community-based | | | | |
| Dental Health Education | | | | |
| Screening | | | | |
| Extractions | | | | |
| Fillings | | | | |
| Scaling | | | | |
| Polishing | | | | |
| Eyelet wiring<br>Root canal Treatment<br>Referral | | | | |
| | | | | |
| | | | | |
| 3. School health programs | | | | |
| Dental health Education | | | | |
| Screening | | | | |
| Extraction<br>Filling | | | | |
| Scaling | | | | |
| Polishing | | | | |
| Eyelet wiring | | | | |
| Root canal | | | | |
| Referral | | | | |

APPENDIX VI

Staff requirement per health care facility level in accordance with the National Oral Health Policy.

***(Table showing Annex 6, NATIONAL ORAL HEALTH POLICY***

***Produced by: Ministry Of Health In collaboration with the World Health Organization, January 2007)***

| **HEALTH FACILITY LEVEL** | **STAFF CATEGORY** | **POSTS** | **NUMBER REQUIRED** | **DISCIPLINE** |
|---|---|---|---|---|
| NATIONAL REFERRAL HOSPITAL, MULAGO HOSPITAL COMPLEX | Senior House officers | SHO | 18 | Oral & maxillo-facial Surgery |
| | Dental Surgeons | Senior consultant dental surgeon<br><br>Consultant Dental Surgeon<br><br>Dental surgeon Special grade<br><br>Principal dental Surgeon<br><br>Senior Dental Surgeon<br><br>Dental Surgeon | 3<br><br>5<br><br>10<br><br>2 | Oral surgery<br><br>Orthodontics<br><br>Prosthetics<br>Restorative dentistry<br><br>Paediatric Dentistry<br><br>Oral medicine<br><br>Oral pathology |

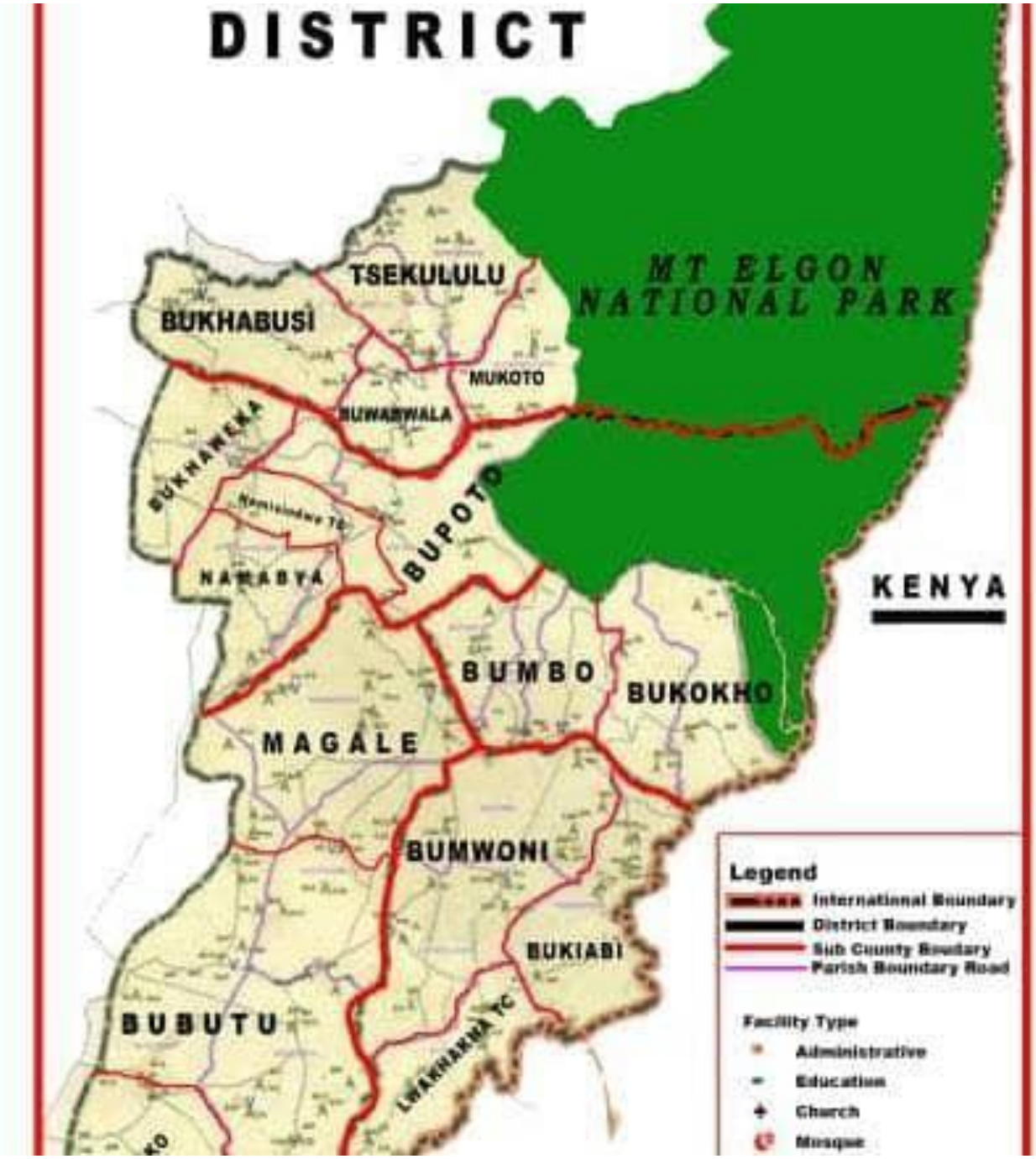
| | | | | |
|---|---|---|---|---|
| | | | 4<br><br><br>30 | |
| | Public Health Dental officers | Principal, Snr, Grade I, II | 24 | Prescribed duties as per Training |
| | Dental technologists | Principal, Snr, Grade I, II | 18 | Prescribed duties as per Training |
| | Dental Equipment Maintenance Technicians | Principal, Snr, Grade I, II | 14 | Prescribed duties as per Training |
| | Dental Nurses | Enrolled | 10 | General nursing |
| REGIONAL REFERRAL HOSPITAL | Dental surgeons | Senior consultant dental surgeon<br><br>Consultant Dental Surgeon<br><br>Dental surgeon Special grade<br><br>Principal dental Surgeon<br><br>Senior Dental | 1<br><br><br><br><br>2<br><br><br><br>2 | Oral surgery<br>Orthodontics<br>Prosthetics<br>Restorative dentistry<br>Paediatric Dentistry<br>Oral medicine<br>Oral pathology |

| | | | | |
|---|---|---|---|---|
| | | Surgeon<br><br>Dental Surgeon | 2<br><br>2<br><br>4 | |
| | Public Health Dental Officers | Principal, Snr, Grade I, II | 5 | Prescribed duties us per training |
| | Dental technologists | Principal, Snr, Grade I, II | 4 | Prescribed duties as per training |
| | Dental Equipment Maintenance Technicians | Principal, Snr, Grade I, II | 4 | Prescribed duties us per training |
| | Dental Nurses | Enrolled | 2 | General nursing |
| GENERAL HOSPITAL | Dental Surgeons | Senior Dental Surgeon<br><br>Dental surgeon | 1<br><br>1 | Not Applicable |
| | Public Health Dental Officers | Grade I<br><br>Grade II | 1<br><br>2 | |
| | Dental equipment maintenance Technicians | Dental Technician | 1 | |

| | | | | |
|---|---|---|---|---|
| | | | | |
| | Dental Nurse Enrolled Nurse | Enrolled Nurse | 1 | |
| HEALTH CENTER IV | Dental Surgeons | Dental surgeon | 1 | |
| | Public Health Dental Officers | Grade II | 1 | |
| | Dental Nurse | Enrolled Nurse | 1 | |
| HEALTH CENTER III | Public Health Dental Officers | Grade II | 1 | |
| | Dental Nurse | Enrolled Nurse | | |

APPENDIX VII

District Map



APPENDIX VIII

Budget

| **ITEM** | **ACTIVITY** | **TOTAL COST/UG.SHS** |
|---|---|---|
| 1 | Proposal | 30,000 |
| 2 | Data collection | 400,000 |
| 3 | Printing | 80,000 |
| 4 | Photocopying | 50,000 |
| 5 | Binding | 15,000 |
| 6 | Airtime | 30,000 |
| 7 | Dissemination of results | 100,000 |
| 8 | Contingencies | 30,000 |
| | **Grand Total** | **735,000** |